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WEST[Generate Collection](#)[Print](#)**Search Results - Record(s) 21 through 29 of 29 returned.**☐ 21. Document ID: US 5650320 A

L2: Entry 21 of 29

File: USPT

Jul 22, 1997

US-PAT-NO: 5650320

DOCUMENT-IDENTIFIER: US 5650320 A

TITLE: Lanthionine antibiotic compositions and methods

DATE-ISSUED: July 22, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Caufield; Page W.	Birmingham	AL		
Novak; Jan	Birmingham	AL		

US-CL-CURRENT: [435/252.3](#); [435/252.33](#), [435/253.4](#), [435/320.1](#), [536/23.7](#)

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	RMC	Draw Desc	Image
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☐ 22. Document ID: US 5648241 A

L2: Entry 22 of 29

File: USPT

Jul 15, 1997

US-PAT-NO: 5648241

DOCUMENT-IDENTIFIER: US 5648241 A

TITLE: Conjugate vaccine against group B streptococcus

DATE-ISSUED: July 15, 1997

INVENTOR-INFORMATION: -

NAME	CITY	STATE	ZIP CODE	COUNTRY
Michel; James L.	Waban	MA		
Kasper; Dennis L.	Newton Centre	MA		
Ausubel; Frederick M.	Newton	MA		
Madoff; Lawrence C.	Boston	MA		

US-CL-CURRENT: [435/69.3](#); [435/252.33](#), [435/253.4](#), [435/320.1](#), [536/23.7](#)

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	RMC	Draw Desc	Image
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☐ 23. Document ID: US 5612031 A

L2: Entry 23 of 29

File: USPT

Mar 18, 1997

US-PAT-NO: 5612031

DOCUMENT-IDENTIFIER: US 5612031 A

TITLE: Antibodies against streptococcus

DATE-ISSUED: March 18, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lehner; Thomas	London			GB2
Smith; Roberta	London			GB2

US-CL-CURRENT: 424/150.1; 424/156.1, 424/163.1, 424/164.1, 424/165.1, 435/70.21,
530/388.2, 530/388.4

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMC	Draw Desc	Image
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☐ 24. Document ID: US 5593829 A

L2: Entry 24 of 29

File: USPT

Jan 14, 1997

US-PAT-NO: 5593829

DOCUMENT-IDENTIFIER: US 5593829 A

TITLE: Method for labeling DNA by ring-opening of purine bases

DATE-ISSUED: January 14, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
McCabe; Mead M.	Miami	FL		

US-CL-CURRENT: 435/6; 435/7.1, 435/975, 536/24.3, 536/25.32

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMC	Draw Desc	Image
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☐ 25. Document ID: US 5518721 A

L2: Entry 25 of 29

File: USPT

May 21, 1996

US-PAT-NO: 5518721

DOCUMENT-IDENTIFIER: US 5518721 A

TITLE: Antibodies against Streptococcus

DATE-ISSUED: May 21, 1996

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lehner; Thomas	London			GB2
Smith; Roberta	London			GB2

US-CL-CURRENT: 424/150.1; 424/156.1, 424/163.1, 424/164.1, 424/165.1, 435/70.21,
530/388.2, 530/388.4

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KMC	Draw Desc	Image
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☐ 26. Document ID: JP 2001302697 A

L2: Entry 26 of 29

File: JPAB

Oct 31, 2001

PUB-NO: JP02001302697A

DOCUMENT-IDENTIFIER: JP 2001302697 A

TITLE: POLYCLONAL ANTIBODY AND METHOD FOR PRODUCING THE SAME

PUBN-DATE: October 31, 2001

INVENTOR-INFORMATION:

NAME

COUNTRY

HIRATA, KOICHIRO

MATSUSHIGE, KOJI

HANIYU, NAOHIRO

FUKUSHIMA, KAZUO

INT-CL (IPC): C07 K 16/12; G01 N 33/569; C07 K 14/315

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 27. Document ID: WO 8806455 A1

L2: Entry 27 of 29

File: EPAB

Sep 7, 1988

PUB-NO: WO008806455A1

DOCUMENT-IDENTIFIER: WO 8806455 A1

TITLE: ANTIBODIES AGAINST STREPTOCOCCUS

PUBN-DATE: September 7, 1988

INVENTOR-INFORMATION:

NAME

COUNTRY

LEHNER, THOMAS

GB

SMITH, ROBERTA

GB

US-CL-CURRENT: 530/388.4; 530/389.5INT-CL (IPC): A61K 39/40; C12P 21/00; A61K 7/16EUR-CL (EPC): C07K016/12

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KWIC	Draw Desc	Image
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☐ 28. Document ID: WO 200181927 A1

L2: Entry 28 of 29

File: DWPI

Nov 1, 2001

DERWENT-ACC-NO: 2002-049289

DERWENT-WEEK: 200206

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TITLE: Detecting Streptococcus sobrinus for use in medicine, dentistry and at home

INVENTOR: FUKUSHIMA, K; HANYU, N ; HIRATA, K ; MATSUSHIGE, K ; UKAJI, F

PRIORITY-DATA: 2000JP-0124070 (April 25, 2000)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
WO 200181927 A1	November 1, 2001	J	076	G01N033/569

INT-CL (IPC): G01 N 33/569

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KMCM	Draw Desc	Clip Img	Image
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☐ 29. Document ID: JP 2001302697 A

L2: Entry 29 of 29

File: DWPI

Oct 31, 2001

DERWENT-ACC-NO: 2002-134678

DERWENT-WEEK: 200218

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TITLE: Novel antibody for detecting pathogenic Streptococcus sobrinus in dental caries, has higher reactivity with Streptococcus sobrinus than Streptococcus mutans

PRIORITY-DATA: 2000JP-0124071 (April 25, 2000)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 2001302697 A	October 31, 2001		017	C07K016/12

INT-CL (IPC): C07 K 14/315; C07 K 16/12; G01 N 33/569

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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KMCM	Draw Desc	Image
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Terms	Documents
L1 and polyclonal antibody	29

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Publication:

Chinese Journal of Dental Research

Year: 1999
Volume 2, Issue 2

[Back](#)

Pages: 23 - 26

Immunolabeling of the Major Cell Surface Protein Antigen of Streptococcus sobrinus with Monoclonal Antibody

Mingwen Fan, DDS/Ping Zhang, DDS, PhD/Zhuan Bian, DDS, PhD/Minquan Du, DDS, PhD/Nili Jin, DDS

Objective: The purpose of this study was to determine the accessibility of monoclonal antibody (McAb), specific for the major cell surface protein antigen (PAG) of *Streptococcus sobrinus*, to the surface of its native epitopes. **Materials and Methods:** An indirect immunogold labeling technique was used to detect the reaction of McAb with *S. sobrinus* 6715. The reactions of polyclonal antibodies (PcAbs) against *S. sobrinus* 6715 or PAG with *S. sobrinus* 6715, *S. mutans* Ingbritt C and *S. rattus* BHT were studied as controls. **Results:** The results indicated that PAG was localized on the outer cell surface of *S. sobrinus*, and McAb was reactive with only a few epitopes of the cell surface, whereas PcAbs were found to be reactive with more epitopes. **Conclusions:** McAb was specific for the PAG, but there was cross-reaction with *S. mutans*. Also there seemed to be an association between fuzzy coat on the surface of *S. sobrinus* and PAG.

L2 ANSWER 2 OF 8 MEDLINE
 AN 2000321742 MEDLINE
 DN 20321742 PubMed ID: 10863403
 TI Immunolabeling of the major cell surface protein antigen of **Streptococcus sobrinus** with monoclonal antibody.
 AU Fan M; Zhang P; Bian Z; Du M; Jin N
 CS College and Hospital of Stomatology, Hubei Medical University, Wuhan, P. R. China.
 SO CHINESE JOURNAL OF DENTAL RESEARCH, (1999 May) 2 (2) 23-6.
 Journal code: 100892845. ISSN: 1462-6446.
 CY ENGLAND: United Kingdom
 DT Journal; Article; (JOURNAL ARTICLE)
 LA English
 FS Dental Journals
 EM 200007
 ED Entered STN: 20000720
 Last Updated on STN: 20000720
 Entered Medline: 20000710

L2 ANSWER 3 OF 8 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.DUPLICATE 1
 AN 1998:73547 BIOSIS
 DN PREV199800073547
 TI Ecological study of *Streptococcus mutans*, **Streptococcus sobrinus** and *Lactobacillus* spp. at sub-sites from approximal dental plaque from children.
 AU Babaahmady, K. G.; Challacombe, S. J.; Marsh, P. D.; Newman, H. N. (1)
 CS (1) Eastman Dent. Inst. and Hosp., Univ. London, 256 Gray's Inn Road, London WC1X 8LD UK
 SO Caries Research, (Jan.-Feb., 1998) Vol. 32, No. 1, pp. 51-58.
 ISSN: 0008-6568.
 DT Article
 LA English

L2 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2003 ACS
 AN 1992:527829 CAPLUS
 DN 117:127829
 TI Immunoassay and kits for **detecting** and quantifying cariogenic bacteria
 IN Miyazaki, Toshitsugu; Matsuda, Yoko; Nakamura, Tsutomu; Ota, Fusao; Nishino, Mizuho
 PA Nagase and Co., Ltd., Japan
 SO Eur. Pat. Appl., 18 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 496345	A1	19920729	EP 1992-100923	19920121
	EP 496345	B1	19960828		
	R: DE, DK, GB, NL, SE				
	JP 05005744	A2	19930114	JP 1991-227539	19910907
	JP 3093833	B2	20001003		
	CA 2059690	AA	19920723	CA 1992-2059690	19920120
PRAI	JP 1991-22858	A	19910122		
	JP 1991-227539	A	19910907		

L2 ANSWER 5 OF 8 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
 AN 1991:459415 BIOSIS
 DN BA92:104195
 TI THE PRESENCE OF TWO FORMS OF THE PHOSPHOCARRIER PROTEIN HPR OF THE PHOSPHOENOLPYRUVATE AND SUGAR PHOSPHOTRANSFERASE SYSTEM IN STREPTOCOCCI.
 AU ROBITAILLE D; GAUTHIER L; VADEBONCOEUR C
 CS GROUPE RECHERCHE ECOL. BUCCALE, DEP. BIOCHIM., ECOLE MED. DENTAIRE, UNIV.

LAVAL, STE.-FOY, QUEBEC, CAN. G1K 7P4.
SO BIOCHIMIE (PARIS), (1991) 73 (5), 573-582.
CODEN: BICMBE. ISSN: 0300-9084.
FS BA; OLD
LA English

~~Q2~~ ANSWER 6 OF 8 MEDLINE DUPLICATE 2
AN 91207145 MEDLINE
DN 91207145 PubMed ID: 2088235
TI Cloning of the amino terminal nucleotides of the antigen I/II of
Streptococcus sobrinus and the immune responses to the
corresponding synthetic peptides.
AU Staffileno L K; Hendricks M; LaPolla R; Bohart C; Van Hook P; Rosen J I;
Warner J; Hoey K; Wegemer D; Naso R B; +
CS R. W. Johnson Pharmaceutical Research Institute, San Diego, CA 92121.
SO ARCHIVES OF ORAL BIOLOGY, (1990) 35 Suppl 47S-52S.
Journal code: 0116711. ISSN: 0003-9969.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Dental Journals; Priority Journals
EM 199105
ED Entered STN: 19910607
Last Updated on STN: 19910607
Entered Medline: 19910517

~~Q2~~ ANSWER 7 OF 8 CAPLUS COPYRIGHT 2003 ACS
AN 1991:205139 CAPLUS
DN 114:205139
TI Cloning of the amino terminal nucleotides of the antigen I/II of
Streptococcus sobrinus and the immune responses to the
corresponding synthetic peptides
AU Staffileno, L. K.; Hendricks, M.; LaPolla, R.; Bohart, C.; Van Hook, P.;
Rosen, J. I.; Warner, J.; Hoey, K.; Wegemer, D.; et al.
CS R. W. Johnson Pharm. Res. Inst., San Diego, CA, 92121, USA
SO Archives of Oral Biology (1990), 35(Suppl.), 47S-52S
CODEN: AOBIAI; ISSN: 0003-9969
DT Journal
LA English

~~Q2~~ ANSWER 8 OF 8 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AN 1986:397465 BIOSIS
DN BA82:82945
TI **DETECTION** AND SPECIFICITY OF ANTIBODIES SECRETED BY SPLEEN CELLS
IN MICE IMMUNIZED WITH STREPTOCOCCUS-MUTANS.
AU RUSSELL M W; CZERKINSKY C; MOLDOVEANU Z
CS DEP. MICROBIOLOGY, INST. DENTAL RESEARCH, UNIV. ALABAMA AT BIRMINGHAM,
BIRMINGHAM, ALABAMA 35294.
SO INFECT IMMUN, (1986) 53 (2), 317-323.
CODEN: INFIBR. ISSN: 0019-9567.
FS BA; OLD
LA English

=>

L2 ANSWER 2 OF 8 MEDLINE

TI Immunolabeling of the major cell surface protein antigen of **Streptococcus sobrinus** with monoclonal antibody.

AB . . . study was to determine the accessibility of monoclonal antibody (McAb), specific for the major cell surface protein antigen (PAg) of **Streptococcus sobrinus**, to the surface of its native epitopes. MATERIALS AND METHODS: An indirect immunogold labeling technique was used to **detect** the reaction of McAb with *S. sobrinus* 6715. The reactions of **polyclonal** antibodies (PcAbs) against *S. sobrinus* 6715 or PAg with *S. sobrinus* 6715, *S. mutans* Ingbritt C and *S. rattus* BHT.

CT . . . Antibodies, Bacterial: UL, ultrastructure

*Antibodies, Monoclonal: UL, ultrastructure

Bacterial Adhesion: PH, physiology

*Bacterial Proteins: IP, isolation & purification

Microscopy, Immunoelectron

Streptococcus sobrinus: CH, chemistry

***Streptococcus sobrinus**: IM, immunology

~~L2~~ ANSWER 3 OF 8 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. DUPLICATE 1

~~TI~~ Ecological study of *Streptococcus mutans*, **Streptococcus sobrinus** and *Lactobacillus* spp. at sub-sites from approximal dental plaque from children.

AB. . . (A), to the side of (S) and below (B) the contact area. Samples were processed by indirect IF using high-titred **polyclonal** anti-*S. mutans* 'c', anti-*S. sobrinus* 'd', anti-*L. casei* and anti-*L. acidophilus* antisera. An overall positive association was found between *S. . .* = 81%), compared with sub-sites A and S (48 and 62%, respectively). *S. mutans* 'c' and *S. sobrinus* 'd' were **detected** together at subsites A = 12%, S = 22%, and B = 38%, with proportional counts at B sites being. . .

ORGN . . .
Rods: Eubacteria, Bacteria, Microorganisms

ORGN Organism Name

human (Hominidae): child; *Lactobacillus*-spp. (Regular Nonsporing Gram-Positive Rods): isolate; *Streptococcus mutans* (Gram-Positive Cocci): isolate; **Streptococcus sobrinus** (Gram-Positive Cocci): isolate

ORGN Organism Superterms

Animals; Bacteria; Chordates; Eubacteria; Humans; Mammals; Microorganisms; Primates; Vertebrates

~~L2~~ ANSWER 4 OF 8 CAPLUS COPYRIGHT 2003 ACS

~~TI~~ Immunoassay and kits for **detecting** and quantifying cariogenic bacteria

AB In the title method, (1) *Streptococcus mutans* in a sample to be examd. is reacted with .gtoreq.1 **polyclonal** or monoclonal antibody having a specific reactivity to the microorganism; (2) the antibody bound to the microorganism is sepd. from unbound antibody by filtration on a membrane filter; and (3) the bound antibody captured on the filter is **detected** by a suitable means. The method allows rapid and convenient **detection** of *S. mutans* with high sensitivity, without the need for selective cultivation of a sample before **detection**, and without the problem of decrease of survival rate of bacteria caused by time lag between sample collection and **detection**. Kits for performing the method are also disclosed. Std. curves for the detn. are presented. *S. mutans* was **detected** in a saliva sample.

IT *Streptococcus mutans*

Streptococcus sobrinus

(detn. of, immunoassay with membrane filter for)

L2 ANSWER 5 OF 8 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.

AB. . . also able to transfer the phosphate group from PEP to the other

specific PTS proteins known in *S. salivarius*. Rabbit **polyclonal** antibodies directed against each form reacted with both proteins. The presence of the 2 forms of HPr was **detected** in fresh cellular extracts of *S. salivarius*; however, their intracellular ratio varied according to growth conditions. A doublet was also. . . mutans, *S. sobrinus*, *S. sanguis*, *S. thermophilus*, *S. bovis*, *S. rattus* and also in *Lactococcus lactis*. A single form was **detected** in *L. casei*, *Enterococcus faecalis*, *S. aureus*, and *Bacillus subtilis*. It thus appears that the presence of 2 forms of. . .

IT Miscellaneous Descriptors

STREPTOCOCCUS-SALIVARIUS STREPTOCOCCUS-MUTANS **STREPTOCOCCUS-SOBRINUS** STREPTOCOCCUS-SANGUIS STREPTOCOCCUS-THERMOPHILUS STREPTOCOCCUS-BOVIS STREPTOCOCCUS-RATTUS STREPTOCOCCUS-AUREUS LACTOCOCCUS-LACTIS LACTOBACILLUS-CASEI BACILLUS-SUBTILIS ENTEROCOCCUS-FAECALIS CHROMATOGRAPHY SDS-POLYACRYLAMIDE GEL ELECTROPHORESIS

L2 ANSWER 6 OF 8

MEDLINE

DUPLICATE 2

TI Cloning of the amino terminal nucleotides of the antigen I/II of **Streptococcus sobrinus** and the immune responses to the corresponding synthetic peptides.

AB A portion of the antigen I/II (spaA, B, P1) gene of **Streptococcus sobrinus** 6715, containing the coding sequence for the amino terminal 684 amino acids of the protein, was cloned in bacteriophage lambda GT10. Selection was by immunological **detection** using a **polyclonal** antiserum to the antigen I/II from Strep. mutans. From the amino acid sequence, peptides were synthesized, 15 amino acids in. . .

L2 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2003 ACS

TI Cloning of the amino terminal nucleotides of the antigen I/II of **Streptococcus sobrinus** and the immune responses to the corresponding synthetic peptides

AB . . . for the amino terminal 684 amino acids of the protein, was cloned in bacteriophage .lambda. GT10. Selection was by immunol. **detection** using a **polyclonal** antiserum to the antigen I/II from *S. mutans*. From the amino acid sequence, peptides were synthesized, 15 amino acids in. . .

IT **Streptococcus sobrinus**

(antigen I/II of, cloning and immunogenicity of synthetic peptides from)

IT Molecular cloning

Protein sequences

(of antigen I/II from **Streptococcus sobrinus**)

IT Conformation and Conformers

(of antigen I/II from **Streptococcus sobrinus**, antibodies in relation to)

IT Peptides, biological studies

RL: BIOL (Biological study)

(synthetic, from antigen I/II of **Streptococcus sobrinus**, immunogenicity of)

IT Antigens

RL: BIOL (Biological study)

(P1, cloning and immunogenicity of synthetic peptides from, of **Streptococcus sobrinus**)

IT Lymphocyte

(T-, antigen I/II synthetic peptides from **Streptococcus sobrinus** stimulation of)

IT Deoxyribonucleic acid sequences

(antigen P1-specifying, from **Streptococcus sobrinus**)

IT Tooth

(disease, caries, vaccine for, synthetic peptides from **Streptococcus sobrinus** I/II antigen in relation to)

IT Gene and Genetic element, microbial
RL: PRP (Properties)
(spaA, cloning and sequence of, of **Streptococcus**
sobrinus)

L2 ~~ANSWER 8 OF 8 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.~~

TI **DETECTION** AND SPECIFICITY OF ANTIBODIES SECRETED BY SPLEEN CELLS
IN MICE IMMUNIZED WITH STREPTOCOCCUS-MUTANS.

AB. . . but not of antigen III was sufficient to induce a strong
specific-antibody response. Some evidence was also obtained for weak
polyclonal stimulation of spleen cells by S. mutans cells and by
antigen I/II, a result which could be relevant to the. . .

IT Miscellaneous Descriptors

STREPTOCOCCUS-RATTUS **STREPTOCOCCUS-SOBRINUS** RABBIT
SURFACE PROTEIN ANTIGEN I-II SURFACE PROTEIN ANTIGEN III
LIPOTEICHOIC-ACID SEROTYPE C POLYSACCHARIDE WEAK **POLYCLONAL**
STIMULATION TISSUE-REACTIVE ANTIBODY DENTAL CARIES VACCINE RELEVANCE

=> d abs 1-8

L2 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2003 ACS

AB Prepd. are **polyclonal** antibodies with selectivity for
Streptococcus sobrinus 100 times higher than for S.
mutans. Immunoassay or ELISA with the **polyclonal** antibody is
used for **detecting Streptococcus sobrinus** in
body fluid, e.g. saliva or tartar., and for diagnosing cavity.

L2 ANSWER 2 OF 8 MEDLINE

AB OBJECTIVE: The purpose of this study was to determine the accessibility of
monoclonal antibody (McAb), specific for the major cell surface protein
antigen (PAG) of **Streptococcus sobrinus**, to the
surface of its native epitopes. MATERIALS AND METHODS: An indirect
immunogold labeling technique was used to **detect** the reaction of
McAb with S. sobrinus 6715. The reactions of **polyclonal**
antibodies (PCAbs) against S. sobrinus 6715 or PAG with S. sobrinus 6715,
S. mutans Ingbritt C and S. rattus BHT were studied as controls. RESULTS:
The results indicated that PAG was localized on the outer cell surface of
S. sobrinus, and McAb was reactive with only a few epitopes of the cell
surface, whereas PCABs were found to be reactive with more epitopes.
CONCLUSIONS: McAb was specific for the PAG, but there was cross-reaction
with S. mutans. Also there seemed to be an association between the fuzzy
coat on the surface of S. sobrinus and PAG.

L2 ANSWER 3 OF 8 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. DUPLICATE 1

AB Previous immunofluorescence (IF) studies have indicated that Streptococcus
mutans may preferentially colonise specific sub-sites within approximal
plaque. The present study aimed to extend these observations to other
mutans streptococci and lactobacilli in such gingival margin plaque. Two
hundred and seventy approximal plaque samples were taken from 90 teeth (3
from each tooth) in 64 children; three gingival margin sub-sites in
relation to the contact area: away from (A), to the side of (S) and below
(B) the contact area. Samples were processed by indirect IF using
high-titred **polyclonal** anti-S. mutans 'c', anti-S. sobrinus 'd',
anti-L. casei and anti-L. acidophilus antisera. An overall positive
association was found between S. mutans 'c' and S. sobrinus 'd' ($p < 0.001$). Significant differences ($p < 0.1$) were found between the
proportional counts at each sub-site for S. mutans 'c': A = 39%, S = 51%
and B = 70%, and for S. sobrinus 'd' 21, 33 and 49%. Mutans streptococci
(MS) appeared to preferentially colonise the sub-site below the contact
area (B = 81%), compared with sub-sites A and S (48 and 62%,
respectively). S. mutans 'c' and S. sobrinus 'd' were **detected**
together at subsites A = 12%, S = 22%, and B = 38%, with proportional
counts at B sites being higher than those at A ($B > A$, $p < 0.01$, and $B >$

S, $p < 0.05$). *Lactobacillus* spp. were isolated rarely, and were usually found together with MS. There was a positive relationship between the presence of lactobacilli or MS and caries (white spot lesions only), although these species could frequently be isolated from noncarious sites. The presence of both *S. mutans* 'c' and *S. sobrinus* 'd' were strongly correlated with early caries lesions. In addition, this study confirmed the variation in the microflora at different sub-sites within approximal dental plaque.

L2 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2003 ACS

AB In the title method, (1) *Streptococcus mutans* in a sample to be examd. is reacted with .gtoreq.1 **polyclonal** or monoclonal antibody having a specific reactivity to the microorganism; (2) the antibody bound to the microorganism is sepd. from unbound antibody by filtration on a membrane filter; and (3) the bound antibody captured on the filter is **detected** by a suitable means. The method allows rapid and convenient **detection** of *S. mutans* with high sensitivity, without the need for selective cultivation of a sample before **detection**, and without the problem of decrease of survival rate of bacteria caused by time lag between sample collection and **detection**. Kits for performing the method are also disclosed. Std. curves for the detn. are presented. *S. mutans* was **detected** in a saliva sample.

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AB The protein, HPr, a necessary component of the phosphoenolpyruvate phosphotransferase system (PTS) in bacteria, was purified from *Streptococcus salivarius* by column chromatography. The purified preparation gave only one band when analyzed by sodium dodecylsulfate gel electrophoresis or by isoelectric focusing in polyacrylamide gel (pI = 4.85). However, electrophoresis in Tris-containing buffers under non-denaturing conditions revealed 2 bands that could be phosphorylated by PEP in the presence of enzyme I of the PTS or by ATP with the HPr kinase. Homogeneous preparations of these 2 forms could be obtained by preparative electrophoresis. Each preparation exhibited only 1 band when analyzed by electrophoresis under non-denaturing conditions, indicating tht the doublet observed before preparative electrophoresis was not an electrophoretic artefact. The electrophoretic mobility of each protein was not modified following heat-treatment at 100.degree. C for 20 min or storage at -40.degree. C for several months. Both HPr proteins catalyzed in vitro the PEP-dependent phosphorylation of lucose, but at a rate slightly lower than that observed with a preparation of HPr containing both forms of the protein. Both forms were also able to transfer the phosphate group from PEP to the other specific PTS proteins known in *S. salivarius*. Rabbit **polyclonal** antibodies directed against each form reacted with both proteins. The presence of the 2 forms of HPr was **detected** in fresh cellular extracts of *S. salivarius*; however, their intracellular ratio varied according to growth conditions. A doublet was also found in many other streptococcal species tested (*S. mutans*, *S. sobrinus*, *S. sanguis*, *S. thermophilus*, *S. bovis*, *S. rattus*) and also in *Lactococcus lactis*. A single form was **detected** in *L. casei*, *Enterococcus faecalis*, *S. aureus*, and *Bacillis subtilis*. It thus appears that the presence of 2 forms of HPr is restricted to the genera *Streptococcus* and *Lactoboccus*.